

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

WRITTEN OPINION
(PCT Rule 66)

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Applicant's or agent's file reference
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REPLY DUE

within 1 month(s)
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International Patent Classification (IPC) or both national classification and IPC
F04B35/04

Applicant

EMPRESA BRASILEIRA DE COMPRESSORES S.A.-EMBRACO

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 19.03.2005

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Frank

I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-11 as originally filed

Claims, Numbers

1-19 as originally filed

Drawings, Sheets

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-12,14-17,19
Inventive step (IS)	Claims	1-12,14-17,19
Industrial applicability (IA)	Claims	1-19

2. Citations and explanations**see separate sheet**

Cited Documents

1. Reference is made to the following document:

D1: EP-A-0 483 447

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

The document **D1** discloses a control system for controlling the movement of a piston 13 in a fluid-pumping device, the piston 13 being displaceable in a block 10 of the fluid-pumping device and being driven by a motor 2 fed by a voltage, the system having; a semiconductor electronic device applying cyclically the voltage to the motor 2 to drive the piston 13; a resistive element R1; a capacitive element C1; a piston-position sensor 15,17 to indicate the passage of the piston 13 by a point at the block 10 of the fluid-pumping device; the capacitive element C1 being charged by means of the resistive element R1 at each cycle of application of voltage to the motor 2, the capacitive element C1 being discharged, at least partly, when the piston 13 passes by the point (cf Figures 1 and 5).

Thus, the subject-matter of claim 1 is not novel (Article 33(2) PCT).

3. For the same analogous reasons as given under item 2 the subject-matter of independant method claim 11 is not novel.

Hence, claim 11 is not novel (Article 33(2) PCT).

4. In addition, for the same analogous reasons explained under item 2 the subject-matter of independant device claim 15 is also not novel.

Hence, claim 15 not novel (Article 33(2) PCT).

5. The subject-matter of dependent claims 2-10,12,14,16,17 and 19 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and inventive step, in the light of the disclosure in document D1.

The following points are also raised

6. a)Independent claim 15 comprises of all the features of claim 1 and is therefore not appropriately formulated as a claim dependent on the latter (Rule 6.4 PCT).
- b)The word "associated" used in dependent claims 3,4 6 and 10 does not give logical sense to the claim, rendering therefore the subject-matter of the claims unclear (Article 6 PCT).
- c)The Independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT with those features known in combination from the prior art D1 being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- d)Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
- e)In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2) PCT, the applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8 (a) PCT).